LOCATION AND SURVEY
DESCRIPTION OF SURVEY DATA FILE DELIVERABLES

January 5, 2026

STATIC GPS / RTK FOR PRIMARY CONTROL

1) GPS raw data files
2) GPS rinex files
3) NGS OPUS solution printouts
4) GPS point description document
5) GPS control sketch

TRAVERSE FOR PRIMARY CONTROL

1) Traverse sketch

LEVELS

1) Levels field book (3 wire forward, single wire return)
2) BM tabulation form
3) TBM tabulation form
4) Documentation on vertical control point (NGS benchmark) held for levels.

UTILITIES

1) Letter to DOTD Utility Relocation Engineer listing all Utility Companies, Utility Company address and Utility Company contact person
2) Letter to DOTD Utility Relocation Engineer listing La. One call contacts and ticket numbers.

SURVEY DATA COLLECTOR FILE TYPES

The following data collector file types are supported by Bentley Inroads Survey, version 8.5 or later version, and may be acceptable.

SDMS (.cal)
Sokkia SDR (.sdr)
SMI Raw (.raw)
LISCAD GSI (.gsi)
Wild GRE (.gre)
AASHTO SDMS (.sdm)
Zeiss REC500 (.zss)
Geodimeter (.raw)
Topcon FC4 (.fc4)
Nikon (.mwd)
TDS (.rw5)
TDS RAW (.raw)
Trimble DC (.dc)

Location and Survey is familiar with only the Sokkia SDR and Trimble DC data collector file types and cannot verify which of the listed data types work correctly and/or contain the required information.

SURVEY FEATURE CODES AND ATTRIBUTES REQUIRED

Refer to the Location and Survey Feature Code Guide Book (revised 01-30-09) for a listing and description of survey feature codes and attributes required for each code.

SURVEY DATA COLLECTOR FILE REQUIRED INFORMATION

Any data collector file type submitted for total station surveys should contain the following information;

1) primary control points
   - primary control point number
   - primary control point x, y & z coordinates
   - primary control point DOTD feature code
   - primary control point DOTD attributes *

2) instrument setup
   - setup point number
   - setup point x, y & z coordinates
   - setup point DOTD feature code
   - setup point DOTD attributes *
   - instrument height

3) backsite observation
   - backsite point number
   - backsite point x, y & z coordinates
   - backsite point DOTD feature code
   - backsite point DOTD attributes *
   - backsite horizontal angle
   - backsite vertical angle
   - backsite slope distance
   - backsite target height
   - backsite tolerance errors

4) foresite observation
   - foresite point number
   - foresite point DOTD feature code
   - foresite point DOTD attributes *
   - foresite horizontal angle
   - foresite vertical angle
   - foresite slope distance
   - foresite target height

5) prism constant correction (should be applied at the total station)

6) atmospheric corrections (should be applied at the total station)

*All of the following DGN deliverables contain a “SURVEY PROJECT NOTE” cell. This cell is populated with relevant project information including but not limited to; site name, project number, parish of site survey, survey control, base stations, utility contact information, etc.

OPENROADS (ORD) DELIVERABLES

SURVEY.DGN

Contains the project’s processed and edited Field Book (or multiple Field Books) and its corresponding graphical “Civil Objects” display, such as the topographic line work and cells of the survey site. The DGN also contains a Digital Terrain Model (DTM) that is dynamically linked to Field Book data. The edited perimeter boundary should be the only DTM feature displayed, closely following the topographic breaklines and surface elevation shots around the limits of the site.

H.XXXXXX.DGN

Created by exporting to DGN graphics from the completed “SURVEY.DGN” drawing. Only basic topographic linework and cells should exist in this drawing, erase all DTM features. No Field Book files, no ‘Intelligent’ “Civil Objects”, no DTM, no OpenRoads data, and no links to any files should exist in this drawing.

TERRAIN.DGN

Created by exporting to DGN graphics from the completed “SURVEY.DGN” drawing. Contours with elevation annotation and the perimeter boundary should be the only DTM features on in this drawing, erase all topographic linework and cells. No Field Book files, no ‘Intelligent’ “Civil Objects”, no topographic lines or cells and no links to any files should exist in this file.

H.XXXXXX_2D.DGN

Contains the horizontal alignment graphics with stationing, curve data, road/hwy names, crossing waterbody names, etc. The geometry is created in OpenRoads Designer and is held in the “OpenRoads Model”.

POINT LIST TEXT FILE

All COGO points exported from ORD Survey Data Field Books to an ASCII text file. The contents of the text file includes the point number, North coordinates, East coordinates, elevation, survey feature code.

FORMS

1) Location Report
2) Survey Activity and Progress Report
3) Property Owners Permission of Entry Form
4) Storage Tank Report Form
5) Storage Tank/Hazardous Waste Site Information Form

SURVEYORS CERTIFICATION

It is the responsibility of your firm to provide Location and Survey with a survey that is accurate, correct, and conforms to all applicable minimum standards for engineering surveys. The survey deliverables must meet the ***"LADOTD Software and deliverable Standards for Electronic plans"*** as describe herein.

The transmittal letter shall be signed and sealed, certifying correctness of survey and deliverable standards.

Suggested transmittal letter wording:

Transmitted herewith is the completed topographic survey for the captioned project. This field survey is certified to have been performed within acceptable standards of practice for engineering surveys, has been reviewed, checked, and is considered to be correct within those standards. This transmittal is in accordance with LADOTD software and Deliverable Standards for Electronic Plans and includes the following: